

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

|   |  |   |
|---|--|---|
| Applicant's or agent's file reference<br>PCTA9501-1       | <b>FOR FURTHER ACTION</b><br>see Form PCT/ISA/220<br>as well as, where applicable, item 5 below. |   |
| International application No.<br><b>PCT/KR2005/000016</b> | International filing date ( <i>day/month/year</i> )<br><b>05 JANUARY 2005 (05.01.2005)</b>       | (Earliest) Priority Date ( <i>day/month/year</i> )<br><b>05 JANUARY 2004 (05.01.2004)</b> |
| Applicant<br><br><b>Bio-MED Photonics Co., Ltd. et al</b> |  |   |

This International search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

## 1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☐ Certain claims were found unsearchable (See Box No. II)

3. ☒ Unity of invention is lacking (See Box No. III)

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. 3

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

b. ☐ none of the figure is to be published with the abstract.



# INTERNATIONAL SEARCH REPORT

International application No.

PCT/KR2005/000016

## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

The common concept linking together the independent Claims 1, 5 & 9 is the following:

Group I : Claims 1-11 The said common concept is apparently neither novel nor inventive. See under Box V of the written opinion.

Group II : Claims 12, dependent on Claim 9, features the window wall having a slope of 20 degree.

Group III : Claims 14 & 15, dependent on Claim 9, feature a time reading window on top plate of the cartridge housing.

The requisite unity of invention (Rule 13.1 PCT) therefore no longer exists between said Groups as far as a single inventive concept within the meaning of Rule 13.2 does not exist between Groups I-III.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/KR2005/000016

**A. CLASSIFICATION OF SUBJECT MATTER****IPC7 G01N 30/88**

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC7 G01N 30/88, G01N 33/53, G01N 33/543, C12Q 1/68

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean Patent and Applications for Inventions since 1975

Korean Utility Models and Applications for Utility Models since 1975

Japanese Utility Models and Application for Utility Models since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKIPASS, WPI, USPTO, PAJ, CAPLUS(STN), INSPECT "fluorescence, laser, lateral, flow, sandwich, analyte, detect\*, captur\*, captor, label, surface, conjugate, etc."

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category* | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No.                   |
|-----------|--|---|
| X<br>Y    | WO 03062824 A1 (Boditech Inc., KR) 31 Jul 2003<br>- see the whole document   | 1, 4, 5, 8, 9, 11<br>2, 3, 6, 7, 10, 13 |
| Y         | US 6136549 A (Feistel, CC., US) 24 Oct 2000<br>- see column 1, line 47 ~ column 5, line 11; column 14, line 23 ~ column 12, line 38; & column 13, lines 18 ~ 67<br>- see Figure 3A & B | 3, 7, 10                                |
| Y         | US 5705338 A (Piran, U., et al., US) 06 Jan 1998<br>- see column 3, line 55 ~ column 4, line 19<br>- see claims 6 & 7  | 2, 6, 13                                |
| A         | US 5712170 A (Kouvonen, IS., et al., FI) 27 Jan 1998<br>- see the entire document  | 1-15                                    |
| A         | US 5658723 A (Oberhardt, B., US) 19 Aug 1997<br>- see the entire document  | 1-15                                    |

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search

19 APRIL 2005 (19.04.2005)

Date of mailing of the international search report

**21 APRIL 2005 (21.04.2005)**

Name and mailing address of the ISA/KR



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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR2005/000016

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s)   | Publication<br>date  |
|---|---------------------|--|--|
| WO 03062824 A1                            | 31 Jul 2003         | AU 2003238066 A1<br>KR 2003065341 A  | 02 Sep 2003<br>06 Aug 2003   |
| US 06136549 A                             | 24 Oct 2000         | AU 200110734 A1<br>CA 2387788 A1<br>EP 01226434 A1<br>JP 15512625 A<br>NO 20021744 A<br>WO 0129559 A1                                  | 30 Apr 2001<br>26 Apr 2001<br>31 Jul 2002<br>02 Apr 2003<br>12 Jun 2002<br>26 Apr 2001                               |
| US 05705338 A                             | 06 Jan 1998         | AT 186599 E<br>AU 7157694 A1<br>CA 2117597 AA<br>DE 69421582 T2<br>EP 00643306 A2<br>JP 7151757 A2<br>KR 19950009259 A<br>PL 304988 A1 | 15 Nov 1999<br>30 Mar 1995<br>16 Mar 1995<br>17 Feb 2000<br>15 Mar 1995<br>16 Jun 1995<br>21 Apr 1995<br>20 Mar 1995 |
| US 05712170 A                             | 27 Jan 1998         | AU 5701594 A1<br>DE 69328120 C0<br>EP 0677170 A1<br>FI 925922 A0<br>JP 08505224 A<br>PL 304890 A1<br>WO 9415215 A1                     | 19 Jul 1994<br>20 Apr 2000<br>18 Oct 1995<br>29 Dec 1992<br>04 Jun 1996<br>09 Jan 1995<br>07 Jul 1994                |
| US 05658723 A                             | 19 Aug 1997         | AT 120543 E<br>AU 2003247528 A1<br>CA 1310566 A1<br>DE 3853457 C0<br>EP 00308494 B1<br>JP 1502797 A<br>WO 8807666 A1                   | 15 Apr 1995<br>13 May 2004<br>24 Nov 1992<br>04 May 1995<br>29 Mar 1995<br>28 Sep 1989<br>06 Oct 1988                |